

**PATENT COOPERATION TREATY**  
**PCT**  
**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 78269153	<b>FOR FURTHER ACTION</b>	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International Application No.  <b>PCT/AU2003/001232</b>	International Filing Date (day/month/year) 19 September 2003	Priority Date (day/month/year)  20 September 2002
International Patent Classification (IPC) or national classification and IPC  Int. Cl. <sup>7</sup> G06F 19/00 159:00		
Applicant  NEUROTECH RESEARCH PTY LIMITED et al		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.
- ☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 1 sheet(s).

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☒ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 19 April 2004	Date of completion of the report 26 October 2004
Name and mailing address of the IPEA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaaustralia.gov.au Facsimile No. (02) 6285 3929	Authorized Officer  <b>CATHERINE REES</b> Telephone No. (02) 6283 2811

**I. Basis of the report****1. With regard to the elements of the international application:\***

- ☐ the international application as originally filed.
- ☒ the description, pages 1 – 45, as originally filed,  
pages , filed with the demand,  
pages , received on with the letter of
- ☒ the claims, pages 46 – 50, 52, as originally filed,  
pages , as amended (together with any statement) under Article 19,  
pages , filed with the demand,  
pages 51, received on 20 October 2004 with the letter of 20 October 2004
- ☒ the drawings, pages 1/19 – 19/19, as originally filed,  
pages , filed with the demand,  
pages , received on with the letter of
- ☐ the sequence listing part of the description:  
pages , as originally filed  
pages , filed with the demand  
pages , received on with the letter of

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:**

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

**4. ☐ The amendments have resulted in the cancellation of:**

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/fig.

**5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\***

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims 1 to 53	YES
	Claims	NO
Inventive step (IS)	Claims 1 to 53	YES
	Claims	NO
Industrial applicability (IA)	Claims 1 to 53	YES
	Claims	NO

**2. Citations and explanations (Rule 70.7)**Citations:

a) WO 94/06088

Novelty (N) and Inventive Step (IS):

The invention as claimed must be considered to be novel and to involve an inventive step when compared to the above citation. This citation discloses a system for providing a patient with individualised, medical advice but the citation does not disclose or even suggest:

- 1) obtaining subject data and a model of the subjects condition;
- 2) determining one or more trajectories representing the progression of the condition in accordance with the model and data obtained; and
- 3) determining a treatment program in accordance with the determined trajectories.

The treatment method of the citation does not determine a trajectory or treatment program but is an adaptive rule-based system. The invention as claimed treats the condition rather than the individual symptoms. The invention as claimed must, therefore, be considered to be novel and to involve an inventive step.

**VI. Certain documents cited****1. Certain published documents (Rule 70.10)**

	Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date ( valid claim) (day/month/year)
P,A	WO 2003/013351	20 February 2003	7 August 2002	8 August 2001

This citation is a good prior art disclosure but does not disclose the invention as claimed. The claims are novel and  
ve an inventive step when compared with this document.

**2. Non-written disclosures (Rule 70.9)**

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)
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- b) Determining a partial set of system values from the subject data, each system value representing a quantity obtained by the measurement of a respective attribute of the condition;
- c) Selecting one or more models, each model including a one or more equations representing the effect of a condition on an individual;
- d) Attempting to determine a complete set of system values in accordance with the partial set of system values and the respective equations, for each model; and,
- e) Selecting a model in accordance with the determined complete set of system values.
- 42) Apparatus according to claim 41, the apparatus being adapted to perform the method of any one of the claims 37 to 40.
- 43) Apparatus for determining subject parameters representing the effect of a subject's condition, the method being substantially as hereinbefore described.
- 44) A computer program product for determining system values representing a subject's condition, the computer program product including computer executable code which when executed on a suitable processing system causes the processing system to perform the method of any one of the claims 37 to 40.
- 45) A computer program product for determining subject parameters representing the effect of a subject's condition, the computer program product being substantially as hereinbefore described.
- 46) A method of determining the effectiveness of treatment provided to a subject, the method including:
- a) Obtaining subject data, the subject data representing the condition;
- b) Using the subject data and a model of the condition to calculate system values representing the effect of the condition;
- c) Providing treatment to the subject;
- d) Repeating steps (a) and (b) to determine modified system values;
- e) Comparing the parameter values and the modified system values; and,
- f) Determining the effect of the treatment in accordance with the results of the comparison.
- 47) A method according to claim 46, the method of determining the system values being a method according to any one of the claims 37 to 40.
- 48) A method of determining the effectiveness of treatment provided to a subject, the method being substantially as hereinbefore described.
- 49) Apparatus for determining the effectiveness of treatment provided to a subject, the apparatus including a processing system adapted to:
- a) Obtaining subject data, the subject data representing the condition;
- b) Using the subject data and a model of the condition to calculate system values representing the effect of the condition;